Appendix A: Milk Meter Software Version 19.40

Version 19.40 of the milk meter software for *AfiFlo* and *AfiLite* includes four new features:

Control of Codes and Alerts (Requires AfiFarm 3.05 or higher)

- The user can define the priority level of each Health Code.
- The user can define the alarm level (High, Medium or Low) of each health code
  - **High Level**: AfiLite and AfiFlo display units flash, **Start** button must be pressed twice (or released by password), and AfiFlo display units sound an alarm.
  - **Medium Level**: AfiLite and AfiFlo display units flash, **Start** button must be pressed twice.
  - **Low Level**: AfiLite and AfiFlo display units flash.
- The user can define alert level in the case of an unidentified cow entering a stall.

Additional Information (Requires AfiFarm 3.05 or higher)

The user can assign extending codes to health codes to provide additional information. This information can be either positional or numerical.

Output Control (Requires AfiFarm 3.05 or higher)

- Automatic Cluster Removal can be cancelled for pre-selected cows
- Strip Cancel:
- Spoilt First Milk : milk from cows producing initial quantities of unusable milk can be automatically directed into a separate collection system
- Spoilt Milk: unusable milk can be directed into a separate collection system

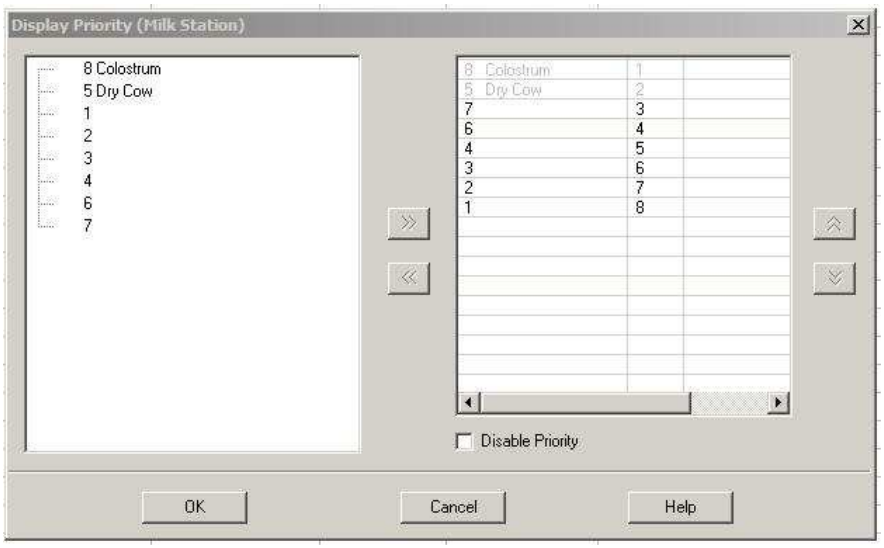
Cluster Control

The user can enable the cluster to be raised or lowered with a single press on start milking button

Control of Codes and Alerts

Name	Cow ID Protection Level	Code	ID-L
Group	**System**	**To access function:**	**Only from AfiFarm**
Description	The user can select one of four responses to an unidentified cow (unassigned animals or faulty tags) entering a stall. Level 0 Disable – Milking is performed without any delay or operator involvement. This is suitable for parlors which do not use an ID system. Level 1 Low – The animal cannot be milked until the system is operated by the external start button or by the operator pressing the Start Milking button again. This is suitable for parlors which have many animals without tags. Level 2 Medium – The external start button is inactivated and the animal cannot be milked until the system is operated by the operator pressing the Start Milking button again. This is the default level as it requires the operator to look at the animal before starting milking. Level 3 High – The external start button is inactivated and after the operator presses the Start Milking button, the display/ keyboard requires a code before restarting. This level obliges the operator to identify the animal before milking it.		
Default	Default Level: 2 Medium		
Activation	From AfiFarm | Define Process | Milk Station Parameters | Parameters (See Enabling a Parameter, page XII)		
Operation	Once enabled operates automatically		
Remarks	Can only be accessed by systems operating under *AfiFarm 3.05* or higher Can only be activated from the *AfiFarm* interface		

Name	Assigning Code Priorities	Code	
Group	**System**	**To access function:**	**Only from AfiFarm**
Description	AfiFlo and AfiLite milk meters identify and respond to up to three Health Codes with the highest priorities The user can assign different priorities to the Health Codes.		
Default	The default priorities of AfiFarm are in descending order 8, 7…, 1.		

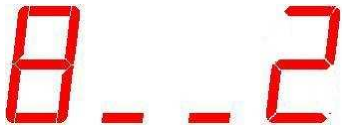
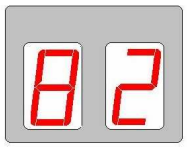
Name	Assigning Code Priorities	Code	
Activation	1. From the Define Process screen, click Milk Station Parameters. 2. From the menu select Priorities, the following screen is displayed.  3. Using the navigation buttons change the priorities. 4. Click **OK**. 0.		
Range	All		
Operation	After activation operates automatically		
Remarks	Can only be accessed by systems operating under *AfiFarm 3.05* or higher Can only be activated from the *AfiFarm* interface		

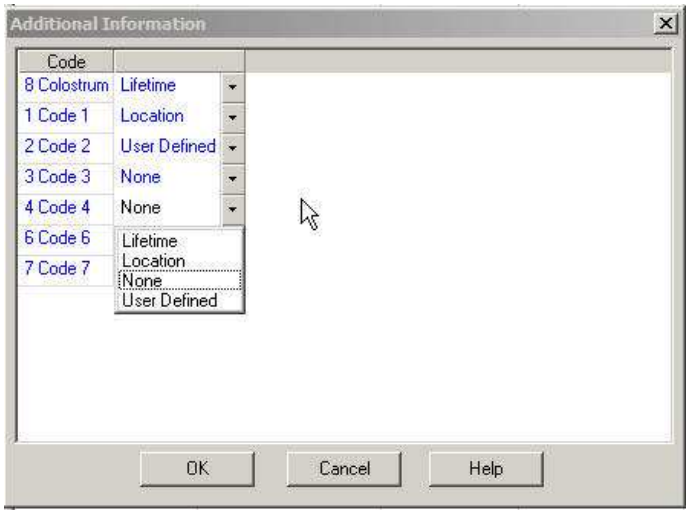
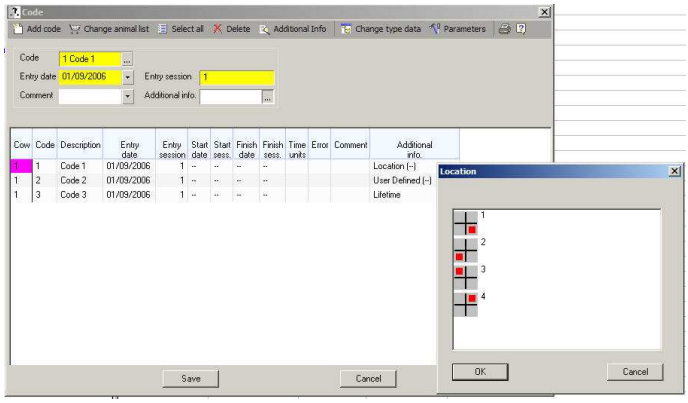
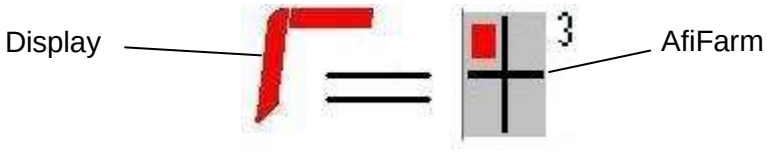
Name	High Level Alert	Code	
Group	**System**	**To access function:**	**Only from AfiFarm**
Description	The user can now set the alert level of health codes to high.		
Default	Default Health Codes 7,8		
Activation	From AfiFarm|Define Process|Milk Station Parameters|Parameters (See Enabling a Parameter, page XII) Requires Extending Code enabled The user defines which health codes will activate this function, see **Assigning Health Codes to Parameter**, below		
Range	All the Health Codes except Health Code 5 (always Medium Level)		
Operation	After activation operates automatically		
Remarks	Can only be accessed by systems operating under *AfiFarm 3.05* or higher Can only be activated from the *AfiFarm* interface		

Name	Medium Level Alert	Code	
Group	**System**	**To access function:**	**Only from AfiFarm**
Description	The user can now set the alert level of health codes to medium. Milk meters are factory programmed with different responses to high, medium and low alert levels.		
Default	Default Health Codes 5,6		
Activation	From AfiFarm │ Define Process │ Milk Station Parameters │ Parameters (See Enabling a Parameter, page XII) Requires Extending Code enabled The user defines which health codes will activate this function, see **Assigning Health Codes to Parameter**, below		
Range	All the Health Codes except Health Code 8 (always High Level)		
Operation	After activation operates automatically		
Remarks	Can only be accessed by systems operating under *AfiFarm 3.05* or higher Can only be activated from the *AfiFarm* interface		

Name	Low Level Alert	Code	
Group	**System**	**To access function:**	**Only from AfiFarm**
Description	The user can now set the alert level of health codes to low Milk meters are factory programmed with different responses to high, medium and low alert levels		
Default	Default: Health Codes 1,2,3,4		
Activation	From AfiFarm │ Define Process │ Milk Station Parameters │ Parameters (See Enabling a Parameter, page XII) Requires Extending Code enabled The user defines which health codes will activate this function, see **Assigning Health Codes to Parameter**, below		
Range	All the Health Codes except Health Code 8,5		
Operation	After activation operates automatically		
Remarks	Can only be accessed by systems operating under *AfiFarm 3.05* or higher Can only be activated from the *AfiFarm* interface		

Additional Information

Name	Additional Information	Code	EC
Group	System	To access function:	Only from AfiFarm
Description	Enables additional information to be identified with the ID number of a specific cow and displayed on the display unit. There are four types of additional information that can be assigned to a Health Code: • **Location** – certain health codes refer to a specific location on the cow, such as a damaged teat. • **Lifetime** – certain health codes have a limited life span, such as colostrum or antibiotic treatment. The range is 0 — 9, where each number represents a milking session. The additional information display shows the number of milking sessions completed where the first milking session equals 0. • **None** – no additional information added. • **User Defined** – the herd manager defines the meaning of the additional information displayed. The herd manager defines which type of additional information is assigned to each Health Code. The additional information is displayed together with the health code on the display screen:  **Figure 1: AfiLite Display 8–Additional Information 2–Health Code**  **Figure 2: AfiFlo Display 8–Additional Information 2–Health Code**		
Default	OFF		

Name	Additional Information	Code	EC
Activation	From AfiFarm|Define Process|Milk Station Parameters|Parameters (See) To assign type of Additional Information to Health Code a. From AfiFarm|Define Process| Milk Station Parameters|Additional Information. (See Figure below) b. Select **Health Code** c. Select type of Additional Information from menu. d. Click **OK** 		
Range	**ON** or **OFF**, All Health Codes except Health Code 5 Cannot assign Location to Health Code 8		
Operation	From AfiFarm|HerdView|*Select Cow*|Code| **Additional info**|*See below for specific Additional Information Types* **Location**  a. From **Additional Info** click ... . b. From the **Location** box, select the required location. c. Click **OK**. d. Click **Save**. After identification the equivalent symbol will be displayed on the AfiFlo display, see example below. 		

Name	Additional Information	Code	EC

Figure 3: AfiLite Display 2–Health Code

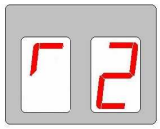
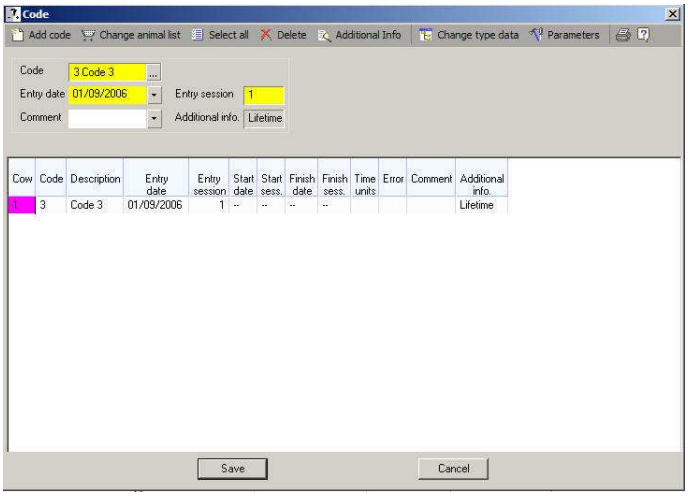


Figure 4: AfiFlo Display 2–Health Code

Lifetime



Lifetime extending code is activated immediately after the Health Code is assigned to a cow.

The number of sessions is displayed on the AfiFlo display panel. In the example below **eight** milking sessions have passed since **Health Code 2** was assigned to the cow being milked**.**

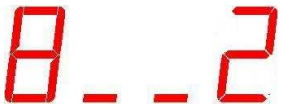


Figure 5: AfiLite Display 8–Additional Information (Lifetime) 2–Health Code

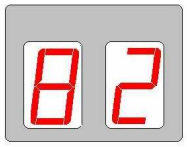
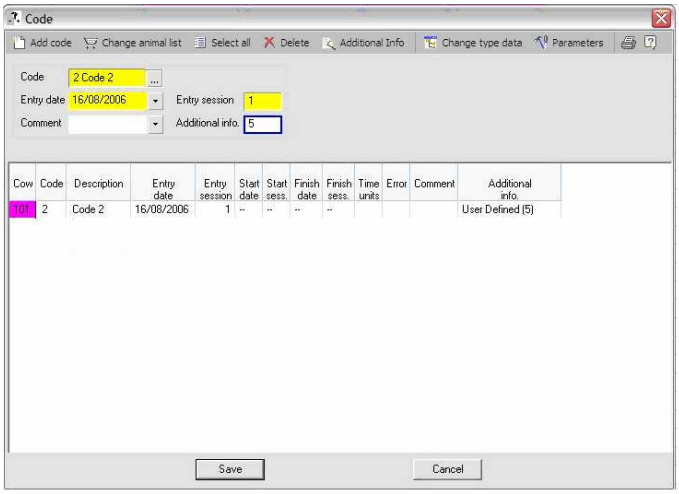
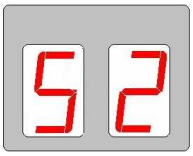


Figure 6: AfiFlo Display 8–Additional Information (Lifetime) 2–Health Code

User Defined

Name	Additional Information	Code	EC
	 a. Type in the **User Defined code, (5** in the example above). b. Click **Save.** c. The user defined code is displayed together with the Health Code on the AfiFlo display panel. **Figure 7: AfiLite Display 5–Additional Information (User Defined) 2–Health Code**  **Figure 8: AfiFlo Display 5–Additional Information (User Defined) 2–Health Code**	
Remarks	Can only be accessed by systems operating under *AfiFarm 3.05* or higher Can only be activated from the *AfiFarm* interface		

Output Control

Name	Locked Milking	Code	LO
Group	**System**	**To access function:**	**Only from AfiFarm**
Description	The herd manager can select which Health Codes lock the Milking button of the AfiFlo/ AfiLite display. The milking button can be released by the milking operator entering a code.		
Default	Default Health codes: **5,6,7,8**		
Activation	From AfiFarm | Define Process | Milk Station Parameters | Parameters (See Enabling a Parameter, page XII) Requires Extending Code enabled The user defines which health codes will activate this function, see **Assigning Health Codes to Parameter**, below.		
Range	All Health Codes		

Name	Locked Milking	Code	LO
Operation	The milking operator can release the milking button by entering a code.		
Remarks	Can only be accessed by systems operating under *AfiFarm 3.05* or higher Can only be activated from the *AfiFarm* interface		

Name	Strip Cancel	Code	ST
Group	System	To access function:	Only from AfiFarm
Description	Stripping is not performed on animals with the selected health codes. The herd manager can select which Health Codes cancel the Strip Delay function.		
Default	Default Health Code: 2		
Activation	From AfiFarm|Define Process|Milk Station Parameters|Parameters (See Enabling a Parameter, page XII) Requires Extending Code enabled Requires Strip Delay enabled The user defines which health codes will activate this function, see **Assigning Health Codes to Parameter**, below		
Range	All Health codes		
Operation	This function is valid only for systems which have the strip mechanism installed.		
Remarks	Can only be accessed by systems operating under *AfiFarm 3.05* or higher Can only be activated from the *AfiFarm* interface		

Name	Automatic Stimulation	Code	AS
Group	System	To access function:	Only from AfiFarm
Description	This function changes the rate of pulsation to stimulate milk flow. The herd manager can select which Health Codes cancel the Automatic Stimulation function.		
Default	Default: Health codes 3		
Activation	From AfiFarm|Define Process|Milk Station Parameters|Parameters (See Enabling a Parameter, page XII) Requires Extending Code enabled Requires Automatic Stimulation (AS) enabled. The user defines which health codes will activate this function, see **Assigning Health Codes to Parameter**, below		
Range	All Health Codes		
Operation	After activation operates automatically		
Remarks	Can only be accessed by systems operating under *AfiFarm 3.05* or higher Can only be activated from the *AfiFarm* interface		

Name	CAR Activation	Code	CAR AC
Group	**System**	**To access function:**	**Only from AfiFarm**
Description	AfiFarm automatically removes clusters from animals after a pre-set time, CAR function disables this for animals with selected health codes and the cluster removal is performed manually by the milking operative. This function enables cows, previously identified as slow milkers, to be individually treated. The herd manager can select which Health Codes cancel the Automatic Stimulation function.		
Default	Health Code 1		
Activation	From AfiFarm │ Define Process │ Milk Station Parameters │ Parameters (See Enabling a Parameter, page XII) Requires Extending Code enabled Requires Automatic Cluster Removal (ACR) enabled.. The user defines which health codes will activate this function, see **Assigning Health Codes to Parameter**, below		
Range	All Health Codes		
Operation	After activation operates automatically**,** requires manual cluster removal for selected animals		
Remarks	Can only be accessed by systems operating under *AfiFarm 3.05* or higher Can only be activated from the *AfiFarm* interface		

Name	Spoiled First Milk	Code	SO
Group	**System**	**To access function:**	**Only from AfiFarm**
Description	The system automatically diverts the first milk from cows, pre-defined by the herd manager, from contaminating milk stored in the milk tank. This is useful for cows which are still producing small quantities of colostrum.		
Default	Default Health Codes: 4,6		
Activation	From AfiFarm │ Define Process │ Milk Station Parameters │ Parameters (See Enabling a Parameter, page XII) Requires Extending Code enabled Requires Spoiled Milk Parameter (SO) enabled The user defines which health codes will activate this function, see **Assigning Health Codes to Parameter**, below		
Range	All Health Codes, same codes cannot be assigned to both Spoiled First Milk Function and Spoiled Milk function.		
Operation	This function is only valid for parlors which have a separate system for removing spoilt milk.		
Remarks	Can only be accessed by systems operating under *AfiFarm* 3.05 or higher Can only be activated from the *AfiFarm* interface		

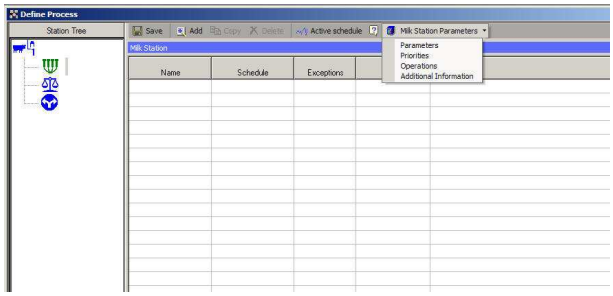
Name	Spoiled Milk	Code	SO
Group	System	To access function:	Only from AfiFarm
Description	The system automatically diverts spoilt milk, defined by health codes, away from the milk tank. This function prevents milk from cows pre-defined by the herd manager, such as cows suffering from Mastisis or receiving antibiotics, from contaminating milk stored in the milk tank		
Default	Default Health Codes: 5,7,8		
Activation	From AfiFarm | Define Process | Milk Station Parameters | Parameters (See Enabling a Parameter, page XII) Requires Extending Code enabled Requires Spoiled Milk Parameter (SO) enabled The user defines which health codes will activate this function, see **Assigning Health Codes to Parameter**, below		
Range	All Health Codes, same codes cannot be assigned to both Spoiled First Milk Function and Spoiled Milk function.		
Operation	After activation operates automatically This function is only valid for parlors which have a separate system for removing spoilt milk		
Remarks	Can only be accessed by systems operating under *AfiFarm 3.05* or higher Can only be activated from the *AfiFarm* interface		

Cluster Control

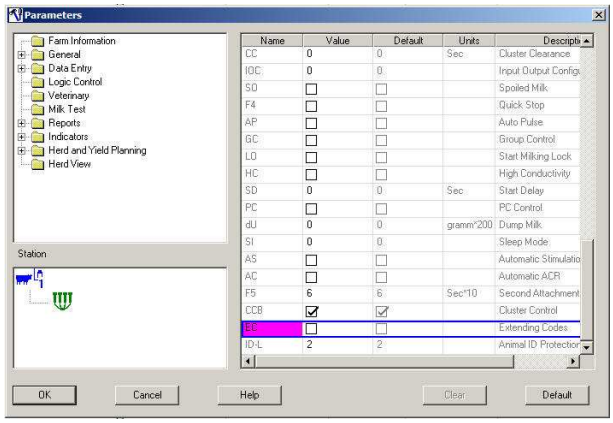
Name	Cluster Control	Code	CC
Group	System	To access function (AfiFlo)	↵ & 0
		To access function (AfiLite)	↗ & 0
Description	Raise or lower cluster with a single press on start milking button (AfiFlo) Raise or lower cluster with a single press on start milking button (AfiLite)		
Default	ON		
Activation	In 5456 (Group 0), set CC00 to CC01 For procedure see AfiLite or AfiFlo user manual		
Range	**ON** or **OFF**		
Remarks	Valid for all *AfiFarm* versions		

Enabling a Parameter

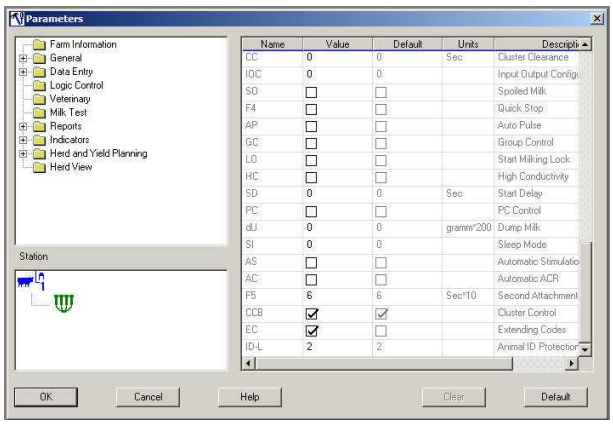
1. From the **Define Process** screen, click **Milk Station Parameters**.



2. From the menu select **Parameters**, navigate to and highlight the desired parameter, **EC (Extended Codes)** in the example below.



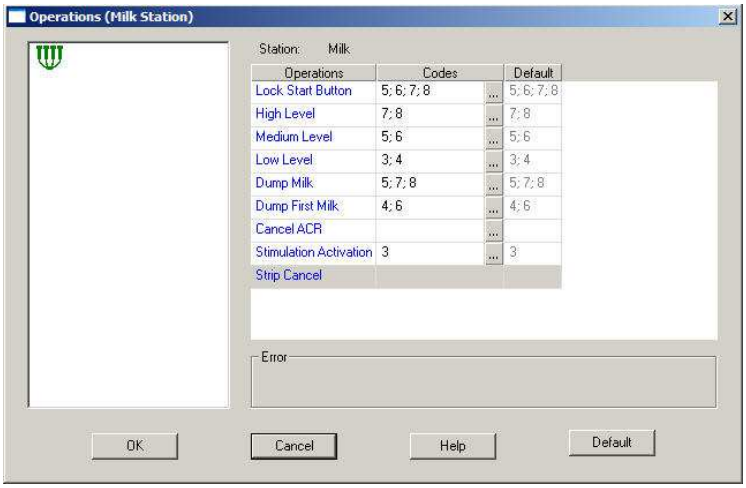
3. Enable the desired parameter and click **OK**.



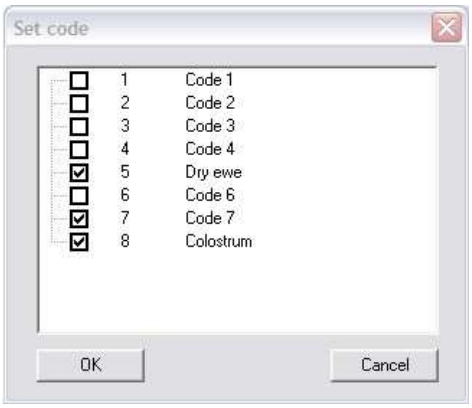
Assigning Health Codes to Parameter

The parameters initiate operations according to the codes assigned to the parameter. In the example below, the Lock Start Button is activated when Health Codes 5, 6, 7, or 8 are identified.
The Herd Manager can assign the codes or use the default codes.

1. Verify that Extended Code parameter and the relevant parameter are enabled.
2. From the **Define Process** screen, click **Milk Station Parameters**.
3. From the menu select **Operations**.
4. Select the parameter that you want codes assigned to, click ...



5. The following screen is displayed, tick the codes desired to operate the Lock Milking parameter.



The same Health Code cannot be assigned to conflicting operations.

Note

Spoilt Milk and **Spoilt First Milk** have been both assigned to Health Code 5

The following screen is displayed and the conflicting operations are highlighted by being colored red.